

end, uniseptate, with a large nucleus in each division,  $\cdot 001$  inch long by  $\cdot 0005$  broad.

The sporidia of this and the next species differ entirely from those of our other British species. Duby's plant is on *Juniperus phæniceus*, that of Fries on oak.

PLATE V. fig. 37. *a.* asci and paraphyses; *b.* sporidia, highly magnified.

1181. *H. repandum*, Blox., Duby, Hyst. p. 27, tab. 1. f. 6.

On rotten stumps. Orton Wood, near Twycross, Rev. A. Bloxam.

Perithecia almost free, elliptic, the lips well rounded; aperture gaping. Asci rather short; sporidia broadly cymbiform, the apex at one end very slightly elongated and perfectly hyaline,  $\cdot 0006$ – $\cdot 0007$  inch long\*.

PLATE V. fig. 38. *a.* ascus and paraphyses, magnified; *b.* sporidia, more highly magnified.

#### BIBLIOGRAPHICAL NOTICE.

*Geological Map of England and Wales.* By Prof. RAMSAY, F.R.S., F.G.S., &c. 3rd edition. 1866.

THAT a new edition of this useful Map should be required speaks well of the public taste for geological knowledge; or at all events indicates that the public find that they require and can use a map showing at a glance to those who can read it aright the real structure of the country, the chief characters of its hills and valleys, the courses of its rivers in relation to the nature of the uplands, and the projections and hollows of its coasts in relation to the harder and softer materials of its rocky skeleton, and, still more, the relative position of its mines, coal-pits, quarries, and other sources of mineral wealth. The traveller may, if he will, recognize the geological character of the country he is passing through by rail or otherwise, by referring to this handy sheet; the tourist may spread it out on the green sward, the beach, or the barren hill-top, and trace out the deep-set roots of the mountain, the inland range of the sea-cut strata, or the structure of hill and dale around, and take in new pleasure with his satisfied curiosity, besides all the delight that light and shade, form and colour, changing cloud and rippling water can give him, be he artist or amateur. Fishing and shooting, too, have an additional zest with the geologist; for he is rarely too busy not to see something new; and when sport is dull, the eye is still pleasingly at work.

\* *Coniocybe bæomyciodes*, Erbario Crittogamico Italiano.

On turpentine. Lucknam, Dec. 10, 1864.

From pallid white to a bright yellow, sometimes brick-red, scattered over some *Sporidesmium* (*Tromera resinæ*) which colours the turpentine black.

The genus *Coniocybe* is a very doubtful member of the Fungi; and the species, which is new to Great Britain, is therefore recorded in a note. . .

After a day's hunting a geological map has explained why white mud and brown, black clay and white chalk, peat-bog and sand-hills have succeeded each other so quickly in the run across country,—or why one long gallop carried along with it the uniform splashing of yellow mud with little change. Of course, now-a-days, geological maps are hanging up in halls and studies far more frequently than in times past; and instead of trying to find causes for differences of peoples and lands in county-boundaries and political divisions, we look to mountains and valleys, hills and dales, with their varying geological structures, as land-marks among men, whether in counties, provinces, or continents. The traveller in unknown lands brings home but a meagre account of the geography of the country he would describe if he knows not its real structure: he may make a model even of its heights and rivers; but, without a knowledge of its strata, his model will fall as short in actual worth as a badly painted portrait. Not only will a full appreciation of structural peculiarities of hill and cliff be wanting, but none of the links of analogy or identity that bind it on to the strata of other lands can be indicated; and, like the nameless ruined column, it waits for further elucidation.

At home our geological maps are progressing rapidly towards perfection. Amateur workers have accumulated observations for more than fifty years; and within about twenty years a systematic plan of geologizing the British Isles has been carried on by the State. The Government Geologists, well trained, enthusiastic, and yet cautious, fairly using the results of fore-gotten knowledge, have worked as quickly as their limited numbers would permit. Thus they have gone over Wales, the South of England, much of the Midland Counties, some parts further north in Scotland, and a large part of Ireland. From these results Prof. Ramsay has carefully produced the Map of England and Wales before us, filling up unsurveyed areas with the results of amateur and casual work. In this third edition we may easily see where earlier mapping has given way to the work of adepts and professional geologists, working over every inch of the ground, going along the whole line of an outcrop, trusting nothing to fancy or the memory, but examining and noting with precision, day by day. In this way the broad areas of colour, with boldly rounded and entire boundary-lines, filled in as the result of a holiday's research or rapid sketch-work, must be replaced by the laborious entanglement of outlier, inlier, and jagged border of outcrops along broken ground, carrying at once an appearance of truth to the experienced eye. Thus in the so-called "London Basin" more detail in the northern border of the Tertiary beds is now given; and the Bagshot formation and the alluvium of the Thames are far more correctly delineated. The Tertiary outliers at the west of this area, and those between it and the "Hants basin," are altogether rearranged, patches of "Drift" apparently having formerly been mistaken in many instances. The Wealden area is now far better characterized in accordance with the late researches of the Geological Surveyors, who have worked out its complicated structure as carefully as if it were a coal-field; nor indeed do we know but what it

will be soon necessary to apply their knowledge in the search for coal in the old ridge of crumpled palæozoic rocks beneath its northern border.

The West of England has received a few touches here and there ; but the outcrops of the Cretaceous and Upper Oolite beds through Berks, Bucks, and Cambridgeshire have been carefully revised ; and so have the Oolites of Northamptonshire and Oxfordshire. Still more important is the improved work in the Warwickshire and Leicestershire Coal-fields, and in Charnwood Forest, with its Cambrian (if not older) rocks. The North-Staffordshire and Lancashire Coal-fields become, as it were, remodelled by the now accurate outlines of their areas ; and the neighbourhood of Manchester, in particular, passes from an artificial to a natural appearance, geologically viewed. The great Permian range, from Durham southward, is taking its natural form on paper ; for the Survey has reached northwards much beyond Doncaster. The red sandstones of the Eden and of the west coast of Cumberland now appear in their true Permian colours ; and various spots in Northumbria also speak of the researches of several active geologists of to-day. Lastly, in Wales a few modifications of outlines in the Old Red and the complicated patches of igneous rocks may be noticed. The illustrated sections are repeated (with stronger lettering) on the margins, as heretofore.

In this new map there are additions to the railways, bolder distinctive numbers to the different formations, and modifications in some of the tints ; and an important mass of information is added in notes and remarks all around the coast.

The general result is that we have a very useful and handsome Geological Map of England and Wales (12 miles to the inch), not so large as the "Greenough Map" published by the Geological Society of London, but constructed on the same basis, and containing a very large amount of useful information, clearly put by the master-hand of an accomplished geologist, and produced in good style by an intelligent publisher.

## PROCEEDINGS OF LEARNED SOCIETIES.

### ROYAL SOCIETY.

April 26, 1866.—J. P. Gassiot, Vice-President, in the Chair.

"On the Dentition of *Rhinoceros leptorhinus* (Owen)." By W. Boyd Dawkins, M.A., Oxon., F.G.S.

The fossil remains of the genus *Rhinoceros* found in Pleistocene deposits in Great Britain indicate four well-defined species. Of these the *R. tichorhinus*, or the common fossil species, ranged throughout France, Germany, and Northern Russia, and, like its congener the Mammoth, was defended from the intense winter cold by a thick clothing of hair and wool. Its southern limit in the Europæo-Asiatic continent was a line passing through the Pyrenees, the Alps, the northern shore of the Caspian, and the Altai Mountains.